

Figure 1: Detroit Metro Area (DMA): Living HIV/AIDS Cases and Population by Local Health Jurisdiction, 1/1/06

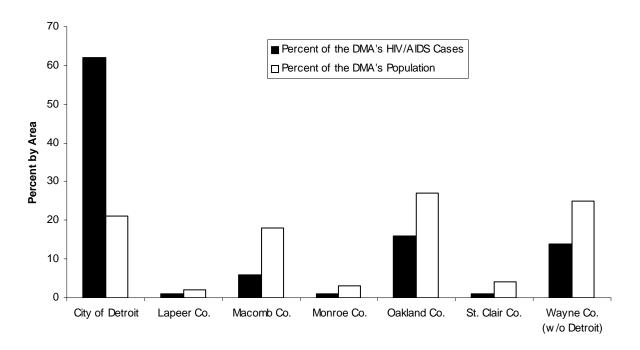


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Statewide Summary of HIV/AIDS Epidemic for the Detroit Metro Area

- How many cases? The Michigan Department of Community Health (MDCH) estimates that there are 10,510 people living with HIV/AIDS in the Detroit Metro Area, of which 8,286 were reported as of January 1, 2006. For this profile, the Detroit Metro Area is the Detroit Metropolitan Statistical Area as defined by the US Census. It contains the counties of Lapeer, Oakland, Macomb, Monroe, St. Clair, and Wayne, including the city of Detroit. The incidence of HIV (the number of newly diagnosed HIV infections) was roughly level at around 600 new cases each year between 2000 and 2004. However, the prevalence of HIV disease (all persons living with HIV infection or AIDS, whether diagnosed recently or years ago) is increasing because new cases are still being diagnosed and infected persons are living longer.
- How are the cases geographically distributed? HIV disease is distributed disproportionately in Michigan. The Detroit Metro Area has more cases then expected (8,286 of the 12,972 cases reported in Michigan) when compared with the percent of people who live there. Within the Detroit Metro Area, the City of Detroit has a higher proportion of cases than expected based on the percent of the population that lives there. Figure 1 displays the distribution of reported cases by local health jurisdictions within the Detroit Metro Area. Sixty-two percent of the reported cases within this area were among residents of the city of Detroit, while 21 percent were residents of the remaining Detroit Metro Area.

The 83 counties of Michigan are divided into 45 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county. All LHDs have been labeled as either being in a high or low HIV prevalence area (please refer to Figure 2, page 3-9 of the State wide profile for methodology used). Within the Detroit Metro Area, the City of Detroit and Oakland and Wayne counties are considered to be LHDs in statistically high prevalence areas (92 percent of cases in the Detroit Metro Area), while Lapeer, Macomb, Monroe and St. Clair counties are considered to be LHDs in statistically low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the local levels, the MDCH HIV/STD & Other Bloodborne Infections Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in the Detroit Metro Area. The guiding question used in this process has been, "In which populations can strategies prevent the most infections from occurring?". Effectively reducing transmission in populations where most of the HIV transmission is taking place will have the greatest impact upon the overall epidemic. The percentage of cases for each behavioral group was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- Men Who Have Sex With Men (MSM)*: MSM make up 51 percent of all reported HIV/AIDS cases (4,213 out of 8,286). The MSM behavioral group continues to be the most affected behavioral group and has an increasing trend from 2000 to 2004, 51 percent to 55 percent (314 to 349 cases).
- Injecting Drug Users (IDUs)*: Of all reported HIV/AIDS cases, 19 percent are IDUs (1,580 out of 8,286). Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend for IDU transmission is level.
- **High Risk Heterosexuals (HRH):** HRH cases constitute 13 percent of the total number of reported cases (1,051 out of 8,286) and are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. The trend for heterosexual transmission is level.

Future Changes Expected in the Rankings of Behavioral Groups:

This year, the proportion of new cases among IDUs has shown a decrease. The proportion among HRHs was level. In addition, when reported cases are adjusted for cases reported without risk, almost twice as many HRHs as IDUs were reported (168 HRH, 93 IDU) in 2004. These data point to the conclusion that HRH are likely to surpass IDUs in the near future.

^{*}These numbers include MSM/IDU in totals and percent calculations

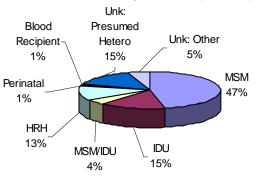
Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System (HARS)

Current surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Although case reporting includes ascertainment of many behaviors associated with HIV transmission, for the purposes of analysis and interpretation, cases are assigned to a risk hierarchy designated by the Centers for Disease Control and Prevention. This hierarchy takes into account the efficiency of HIV transmission associated with each behavior as well as the probability of exposure to an infected person within the population. The adult/adolescent categories, in order, are as follows: (1) men who have sex with men (MSM), (2) injecting drug users (IDU), (3) men who have sex with men and inject drugs (MSM/IDU), (4) hemophilia/coagulation disorders, (5) highrisk heterosexual (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). However, the recent publication of CDC's Technical Guidance for HIV/AIDS Surveillance Programs—Risk Factor Ascertainment also explains categorization of risk, called the exposure category. This term summarizes the multiple risk factors that an individual may have had by including combination of categories of the three most common ones (MSM, IDU, HRH). Exposure categories are mutually exclusive and are not hierarchical. These categories are not currently in use in Michigan.

Figure 2 indicates persons living with HIV/AIDS in the Detroit Metro Area by mode of transmission among the 8,286 reported cases.

Figure 2: Reported Persons Living with HIV/AIDS in the Detroit Metro Area, by risk, 1/1/06 (N = 8,286)



- Half (51 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including four percent who also injected drugs.
- Nineteen percent are injecting drug users, including four percent who are also MSM.
- Thirteen percent had high-risk heterosexual sex partners as their only mode of transmission.
- Twenty percent had no risk identified.

Discussion of Persons with 'No Identified Risk':

Persons in the 'No Identified Risk' (NIR) category make up 20 percent of the HIV-infection population in the Detroit Metro Area and are 60 percent male and 40 percent female. Those persons in the NIR category are 77 percent black, 15 percent white, and nine percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual includes infected persons with no recognized risk that have reported heterosexual sex with a man or a woman (not including male-male sex) and accounts for 11 percent of men living with HIV and 26 percent of women living with HIV. See Table 7, page 4-43.

There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial case report form. Lack of provider elicitation and patient denial, as well as patients truly not knowing their risks and the risks of their partners, are reasons why there is a growing proportion of NIRS.

Distribution of Estimated HIV/AIDS Cases by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Figures 3 and 4 show the impact of this epidemic on six race and sex groups.

Figure 3: Estimated Prevalence of Persons Living with HIV/AIDS in the Detroit Metro Area, by Race and Sex

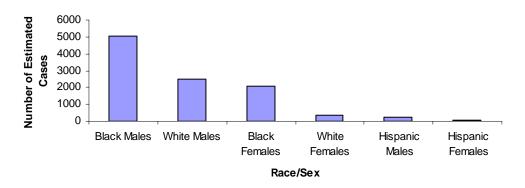
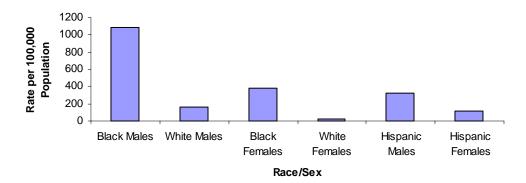


Figure 4: Estimated Case Rates of Persons Living with HIV/AIDS in the Detroit Metro Area by Race and Sex

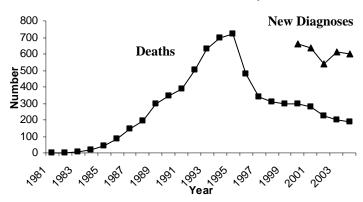


- Black males have both the highest rate per 100,000 population (1,080) and the highest estimated number (5,060) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (383) and the third highest estimated number (2,080) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (327) and the fifth highest estimated number (220) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- White males have the fourth highest rate (166) and the second highest estimated number (2,520) of cases.
- Hispanic females have the fifth highest rate (115) and the lowest estimated number (70) of HIV/AIDS
- White females have the lowest rate (22) and the fourth highest estimated number (340) of HIV/AIDS cases.

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

Figure 5: New diagnoses of HIV infection and HIV deaths in the Detroit Metro Area, 1/1/06

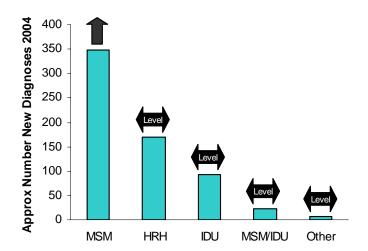


• New HIV Diagnoses (HIV incidence) and deaths are level 2000-2004. HIV incidence and the HIV related deaths are shown in Figure 5. The overall decrease in deaths is likely due to the more effective treatments available since 1996 that delay or prevent the onset of AIDS in HIV-infected persons. The number of persons newly diagnosed with HIV each year was roughly level at about 600 cases between 2000 and 2004.

• Risk Behaviors for HIV Infection, 2000-2004:

Figure 6 shows the proportion of persons diagnosed each year with HIV infection between 2000 and 2004 increased significantly in males who have sex with males (MSM) from 51 percent to 55 percent (314 to 349 cases). There was a decline in the proportion of new diagnoses seen in IDUs, from 18 percent to 15 percent (111 to 93 cases); however, the numbers did not reach statistical significance. The proportion of new diagnoses remained level in all the other risk groups, including High Risk Heterosexuals (HRH). HRH are persons who knew they had one or more partners that were an IDU, bisexual (for females), a recipient of HIV infected blood, or a person infected with HIV.

Figure 6: Number of New Diagnoses in 2004 and Trends 2000-2004 According to Risk



Of the 640 new HIV diagnoses in 2004, there were 349 (55 percent) diagnoses

among MSM, 168 (26 percent) among HRHs, 93 (15 percent) among IDUs, 22 (4 percent) among MSM/IDUs, and 8 (1 percent) among persons with other risks. Other risks include transmission from blood product exposure, perinatal exposure, and those with no identified risk. One percent of diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. Less than 1 percent of diagnoses were among infants born to HIV-infected mothers.

Patterns of Service Utilization of HIV-infected Persons

Data from HIV/AIDS Reporting System (HARS), Uniform Reporting System (URS) & Adult and Adolescent Spectrum of disease (ASD)

The Uniform Reporting System (URS) is a statewide client-level data system designed to document the quantity and types of services provided by agencies receiving Ryan White CARE Act funds, as well as to identify and describe the populations receiving the services. All HIV+ clients served by funded providers are included in the data, even if the CARE Act did not directly fund the reported service. The client-level URS data files submitted by individual service agencies are combined and unduplicated across all providers using an encrypted client identifier, so that all services received by a client are combined into a single client record.

Table 1: Comparing Services with Cases Detroit Metro Area							
Group	Services	Cases					
Males	72%	76%					
Females	28%	24%					
White	20%	27%					
Black	73%	68%					
Hispanic	3%	3%					
Other Minorities	1%	2%					
Unknown Race	3%	0%					
White Males	18%	24%					
Black Males	50%	48%					
Hispanic Males	2%	2%					
Other Minority Males	1%	2%					
Unknown Race Males	2%	0%					
White Females	2%	3%					
Black Females	23%	20%					
Hispanic Females	1%	1%					
Other Minority Females	0%	< 1%					
Unknown Race Females	<1%	0%					
0-12 Years*	1%	1%					
13-19 Years*	2%	1%					
20-24 Years*	4%	3%					
25-44 Years*	51%	50%					
45+ Years*	41%	45%					
Infants: 0-1 Years*	<1%	<1 %					
Children: 2-12 Years*	1%	<1 %					
Youth: 12-24 Years*	6%	4%					
Women: 25 Years*+	25%	23%					
Total HIV Infected	100%	100%					
	(N = 4,160)	(N = 8,826)					

^{*&}quot;Years" within this table refers to **current age**, not age at diagnosis

Tables 1 and 2 represent services delivered to Detroit EMA residents between January 1, 2005 and December 31, 2005, by the 30 CARE Act programs that submitted URS data to the Michigan Department of Community Health (MDCH). It is important to note that these data do not include all CARE Act funded programs serving DEMA residents because data from 10 of the Title I funded programs are not included. Consequently, the data do not represent all DEMA residents served or all services delivered to them by CARE Act programs during the 2005 calendar year. Analysis of the 2005 annual Title I provider reports (the CARE Act Data Reports) indicates that the 2005 URS data include 76 percent of Title I medical clients and services, 95 percent of Title I case management clients, and 100 percent of Title I mental health and dental care clients and services

Detroit area agencies whose clients and services are included in Tables 1 and 2 received 67 percent of the Title I funds allocated in 2005 and represent most of the largest Title I funded programs. They include the Wayne State University (WSU) Adult HIV/AIDS Clinic, the Horizon Project, Sinai Grace Hospital, Visiting Nurses Association (VNA), WSU Hutzel Perinatal Infectious Disease Clinic, AIDS Partnership Michigan (APM), Community Health Awareness Group (CHAG), Health Emergency Lifeline Program (HELP), Detroit Community Health Connection (DCHC), AIDS Consortium of Southeastern Michigan, WSU Psychiatry and Behavioral Professionals (PBMP), Michigan Protection and Advocacy Services (MPAS), and Detroit Human Services (DHS).

Patterns of Service Utilization of HIV-infected Persons

Table 1 shows that in 2005, 4,160 HIV-infected residents of the Detroit Metro Area were reported served by the 30 CARE Act funded programs that submitted URS data to MDCH and represent 47 percent of the reported cases. The comparison shows that persons receiving these services were more likely than the reported population to be female or black, and less likely to be 45 years and older.

The Ryan White CARE Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 12 to 24, and women age 25 or older receiving care is somewhat higher than in reported cases.

Table 2 gives additional detail about the core services of medical care, dental care, mental health care, case management and medication assistance delivered to HIV+ clients who reside in the Detroit EMA by the 30 CARE Act programs that reported URS data in 2005. The service units in the table are not units of time (e.g. 15 minutes, or 1 hour) but are "visits" (or a day in which the service occurred). Only one "visit" per day is counted for any service category except for case management which can have up to 2 per day. However, the unit of service for the AIDS Drug Assistance program is one prescription filled, rather than a day of service.

Table 2: Core services per CARE Act client, Detroit Metro Area Residents, 2005

	Medical Care	Dental Care	Mental Health services	Drug Assistance Program	Case Mgt
No. of providers supplying valid data*	11	4	10	1	11
No. of unduplicated clients served**	2,468	448	434	1,154	1,381
Total Days of Service***	11,027	1,506	2,838	35,217	25,232
Average no. of visits per client***	4.47	3.36	6.54	30.52	18.27
Median no. of visits per client***	3	3	3	23	10
Range of visits per client***	1 - 65	1- 18	1 - 81	1-175	1 - 110

^{*} Data based on number of CARE Act providers that submitted URS data and delivered services to residents of the Detroit EMA. Some providers served residents of both the Detroit EMA and the out-state area.

URS medical care services are for outpatient medical care visits ranging from a complete physical with a physician to a brief check-up with a nurse, drug review with a pharmacist, or a visit for a blood draw or lab test. The annual average of 4.47 visits per client, with a median of 3, is consistent with HIV care standards that recommend monitoring of health status on a quarterly basis. (Table 2)

Dental care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH. Dental services for clients may be extensive, and require multiple visits, but may also simply be for annual prophylaxis. The annual average of 3.36 visits per client is consistent with an initial exam to plan the care needed and two or more treatment visits following approval of the care plan. (Table 2)

A provider may be included in more than 1 service category and may not be located in the Detroit Metro Area

^{**} Unduplicated for the service across all providers. Clients may be counted in more than one service category.

^{***} Service unit for Drug Assistance is one prescription filled, not visits or days of service.

Patterns of Service Utilization of HIV-infected Persons

Mental health services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment. Case management services include both face-to-face contacts and other contacts (by phone or mail) with or on behalf of the client, with the goal of linking HIV+ clients to care services, especially health care services.

The AIDS Drug Assistance Program (ADAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients. The ADAP covers all HIV medications and many other medications as well. In 2005 just over half of all Michigan ADAP clients (53 percent) and expenditures (51 percent) were on DEMA residents. However, since DEMA residents make up two thirds (68 percent) of people living with HIV/AIDS in Michigan, this is less than one would expect. The reason for this discrepancy is that a high proportion of DEMA residents are low income and eligible to receive their HIV medications either through Medicaid or Wayne County Plus Care. ADAP resources are funds of last resort and clients with eligibility for other prescription coverage cannot be accepted into the program.

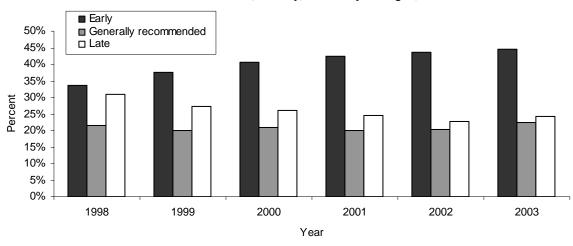


Figure 7: Proportion of patients who received antiretroviral treatment late, at the recommended time, or early, ASD Study-Michigan, 1999-2003*

Note. Late (CD4 count of less than 200 cells/ μ L), generally recommended time (CD4 count of greater than or equal to 200 μ L, but less than 350 cells/ μ L), or early (CD4 count greater than or equal to 350 cells/ μ l).

Figure 7 shows the timing of the initiation of antiretroviral treatment and the proportions of patients whose treatments began at each 3 times (each time corresponds to a category of CD4 count). This analysis included only intervals during which the person had either an outpatient clinic visit or a hospitalization, and did not include intervals in which the person had only visited the ER or had telephone contact with the clinic staff. Of patients receiving care at the two Detroit health care systems included in ASD, the proportion whose antiretroviral treatment was begun late decreased from 31 percent in 1999 to 24 percent in 2003. Inversely, the proportion whose antiretroviral treatment was begun early has increased from 34 percent in 1999 to 44 percent in 2003.

^{*}Data from 2003 may be incomplete

Sexually Transmitted Diseases

Data from STD Reporting System & HIV/AIDS Reporting System (HARS)

Several sexually transmitted diseases (STDs) are more common than HIV infection, have a short incubation period, and are curable. Reviewing their patterns of transmission can provide additional information regarding recent sexual behavior and potential risk, not available from HIV/AIDS data. Studies have shown that the risk of both acquiring and spreading HIV is two to five times greater in people with STDs. Aggressive STD treatment in a community can help to reduce the rate of new HIV infections.

Gonorrhea and Chlamydia

During 2005, there were over 20,000 cases of chlamydia and nearly 11,000 cases of gonorrhea reported the Detroit Metro Area. See Table 9, page 4-45. For both diseases, the highest rate of infection was among persons age 20-24. This age group comprises six percent of the Detroit Metro Area population but accounted for 30 percent of gonorrhea and 33 percent of chlamydia cases. The rate of chlamydia among blacks was 11 times the rate among whites; and the rate of gonorrhea in blacks was 24 times that of whites. Similar to statewide data, 43 percent of gonorrhea cases are male and 57 percent are female, however, the majority of chlamydia cases are female (79 percent). This is likely because more women than men are screened for chlamydia.

Syphilis

Nearly three-quarters (74 percent) of 2005 primary or secondary (P&S) infectious syphilis cases were reported in the Detroit Metro Area (78 of 105 cases). These cases were more likely to be male (78 percent) and older (47 percent over the age of 40) then persons with gonorrhea or chlamydia. Seventy-six percent of these cases were black and 18 percent were white. Five percent of primary or secondary syphilis cases were Hispanic.

Since 2002, the number of P&S infectious syphilis cases reported in the city of Detroit has declined from 443 to just 57 in 2005. There have also been decreases in the number of P&S syphilis cases who do not have a documented HIV test on record (Figure 8). In 2002, 88 percent of the cases did not have a documented HIV test and in 2005, 46 percent of cases lacked this data. This variable can be missing if cases have not had an HIV test or if the date of their test is unknown. However, the decrease in the percentage of those with an unknown test is statistically significant (p=.00013). This reflects both increased awareness of disease investigators to capture this information, as P&S syphilis is highly associated with HIV and men who have sex with men, as well as increased awareness of the public to know their HIV status.

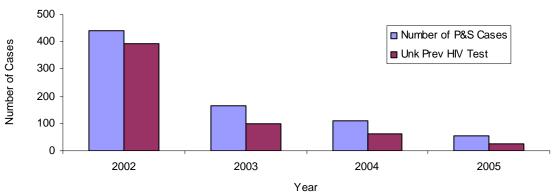


Figure 8: Trend of Detroit Incident P&S Syphilis Cases with No HIV Test History

Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

Data for this analysis was provided by a supplemental surveillance project, Adult and Adolescent Spectrum of Disease (ASD). ASD collected data from the medical records of HIV patients at two major medical centers in Southeast Michigan (Region1), from the time the persons first contacted either site, until they died or were lost to follow-up. The proportion of males in ASD was lower than in the HIV-infected population overall, because ASD included all the women, but only 40 percent of the men who presented for HIV care at ASD sites.

Hepatitis C (HCV) was the most common hepatitis co-infection among HIV-infected persons. Of the 1790 persons in care in 2001-2003, 353 (20 percent) had a diagnosis of HCV at some time during ASD follow-up, while 207 (12 percent) had a diagnosis of hepatitis B (HBV), and 64 (4 percent) of hepatitis A (HAV). The true rates of co-infection with HBV, and particularly with HCV, may be higher than these estimates because HBV and HCV infections are frequently asymptomatic, and not all of the persons in ASD were tested for HBV and HCV.

Table 10, page 4-46 shows the demographic and HIV transmission risk profiles for all the persons in care and for the populations co-infected with HAV, HBV and HCV. Of persons co-infected with HCV, higher proportions were female and black, compared to the proportions among all persons in care, and a higher proportion were over 40 years of age. The predominance of blood transfer as the transmission mode for HCV was reflected in the higher proportions of HCV co-infected persons who had a history of drug injection or other blood contact recorded as their HIV transmission risk. In contrast, the demographic and HIV transmission risk profiles of persons co-infected with HAV (predominantly oral-fecal transmission) did not differ significantly from the profiles of all the persons in care. Among persons co-infected with HBV, the only significant differences were that higher proportions were male and had MSM or drug injection recorded as their HIV transmission risk, reflecting the transmission modes for HBV (high-risk sexual contact and blood transfer).

The proportions of persons in care who were vaccinated against HAV and HBV were lower among persons co-infected with the respective viruses. These differences were expected because of the lack of need for immunization as a result of the long-term immunity (HAV and HBV) and chronic infection (HBV) that are associated with these viruses.

The impact of HCV co-infection on the health of HIV-infected persons is increasing. The numbers of new HCV cases in the U.S. increased in the 1970's and 1980's, and dropped precipitously in the early 1990's. These changes created a cohort of HCV-infected persons in the population, and the aging of this cohort is expected to lead to an increase in the number of persons with HCV-related late stage liver disease through at least 2015. HIV-infected persons will be impacted even more than the general population, because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone. Planning for the care of HIV-infected persons will need to take into account the increasing numbers of HIV-HCV co-infected persons who are expected to develop late stage liver disease over the next decade or more.

¹Centers for Disease Control and Prevention. Hepatitis Surveillance Report No. 58. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2003.

²Armstrong GL, et al. 2000. Hepatology 31:777-782.

³Graham CS, et al. 2001. Clin Infect Disease 33:562-569.

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys, & Supplement to HIV/AIDS Surveillance Project II (SHAS)

Number of Cases:

Men who have sex with men (MSM) are the number-one ranked behavioral group in the Detroit Metro Area. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons. MDCH estimates that there are approximately 5,340 MSM living with HIV disease in the Detroit Metro Area. This includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs. See Table 6, page 4-42.

Incidence:

Archived serum from HIV-infected clients tested at HIV Counseling, Testing & Referral (CTR) sites throughout Michigan from 1993-2002 was tested using the less sensitive assay (STARHS) to determine whether HIV infection was recently acquired (in the 4-6 months prior to the blood draw). During this time period, approximately 58,000 to 68,000 HIV tests were performed annually. The number of incident infections ranged from 22-54 (13 to 24 percent) of HIV-positive persons tested. Overall HIV incidence among all persons tested was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. MSM accounted for almost half of incident HIV infections. Incidence among MSM was stable through the 1990s then dipped and rose, settling at 3 percent in 2002. MSM/IDU had many high peaks, but did drop below that of MSM.

The racial distribution of MSM with newly acquired HIV shifted over time. Whites accounted for the majority of newly acquired infections among MSM (61 percent) in the first 5 study years, but 46 percent in the last 5 years, while the proportion of blacks increased from 34 percent to 47 percent during that same time period. Black MSM had higher incidence compared with the other MSM and had greater increases in incidence in recent years. Incidence increased from two percent in 1999 to seven percent in 2002 among black MSM whereas incidence among white MSM increased from 1.1 percent to 1.6 percent over this same time period. HIV incidence among Hispanic MSM was more erratic due to smaller numbers in this population.

Increases in recent years were most apparent among MSM in the 30-39 year and 40-49 year age groups. Among MSM in their 30s, incidence increased from 1.1 percent in 1998 to 2.6 percent in 2002. The increase was greater still among MSM in their 40s, from 0.8 percent in 1999 to 5.3 percent in 2002.

Race/Ethnicity:

Having sex with other men infected most males in the Detroit Metro Area. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 4,213), black males (2,413) account for more than a half (57 percent) while white males (1,651) comprise approximately 39 percent of men in this combined category (Refer to Table 7, page 4-43)

Ranked Behavioral Group: MSM (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 941 (54 percent) reported MSM behavior, including MSM who were also IDU.

Age:

Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 at the time of diagnosis (38 percent). MSM is the predominant mode of transmission for males aged 13 and up (Refer to Table 8, page 4-44).

Geographic Distribution:

Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in the Detroit Metro Area. Within high prevalence counties (see map on page 3-9) of the Detroit Metro Area, half of the reported cases are MSM, while 63 percent of reported cases in the low prevalence areas are MSM (including MSM/IDU).

Trends and Conclusions:

MDCH estimates that HIV infections among men who have sex with men significantly increased from 2000-2004 from 51 percent to 55 percent (314 to 349 cases). Men who have sex with men will likely continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among male teenagers and male young adults should be geared towards males having sex with older males. These activities should recognize that adolescents at highest risk are those whose sex partners are older, since older men are more likely to be HIV-infected than are younger males.

Ranked Behavioral Group: MSM: Discussion of Behaviorally Bisexual Men

Data from HIV/AIDS Reporting System (HARS), HIV Testing Survey (HITS), & Supplement to HIV/AIDS Surveillance Project II (SHAS)

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through extensive interviews of the infected person. Only 55 percent of all case reports have complete "yes or no" answers to both questions, "has the patient had sex with men," and "has the patient had sex with women." Based on these complete forms, 45 percent of all MSM reported also having sex with women since 1977. These more complete forms also show that two percent of women report having sex with behaviorally bisexual men. These data from case reporting should be viewed as minimum estimates of these behaviors. Nonetheless, they suggest that more women have sex with behaviorally bisexual men than the surveillance system collects. There have been no changes over time.

In an effort to help focus prevention activities, we present the data that are available on bisexual behavior among HIV-infected men in southeast (SE) Michigan from the Supplement to HIV/AIDS Surveillance Project (SHAS), which was conducted from 1990 through 2004. The SHAS interview asked HIV-infected persons directly about specific behaviors. It was conducted only in SE Michigan; therefore, is not representative of all HIV infected persons in the state. Please see the Data Sources Section (page 1-7) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530), 63 percent (333) reported having sex with other men in the 12 months prior to the interview. Of the 333 men, 77 percent (254) were black and 22 percent (72) were white. Also, 34 of the 333 men (10 percent) reported having sex with women in the 12 months prior to the interview. Of these 34 men, 88 percent (30) were black and six percent (2) were white; the remaining six percent represented other races.

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Data from these areas are left combined to maintain statistical power. The mean age of the respondents sampled at these bars was 30 years. Please see the Data Sources Section (page 1-5) to learn more about HITS. This section describes bisexual activity among this group. Among the 81 respondents interviewed in gay bars, the question "Have you had sex with a woman in the past 12 months?" was asked. As can be seen in Figures 9 and 10, men younger than 24 years (28 percent) and black men (27 percent) were more likely to report bisexual behavior.

Figure 9: MSM by Age: Have you had sex with a woman in the past 12 months? (n=81)

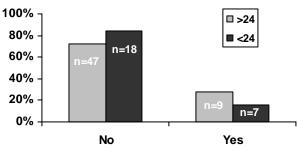
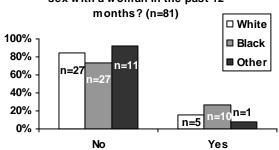


Figure 10: MSM by Race: Have you had sex with a woman in the past 12



Ranked Behavioral Group: MSM: A Look at Condom Usage

Data from Community Intervention Trial for Youth (CITY), HIV Testing Survey (HITS), & Supplement to HIV/AIDS Surveillance Project II (SHAS)

A survey of sexual risk and preventive behavior among young men who have sex with men was conducted in the summer of 1999 in Milwaukee, Wisconsin and Detroit called the Community Intervention Trial for Youth (CITY). Men were randomly recruited outside of venues frequented by young men who have sex with men in the two cities. A total of 547 men were surveyed, 48 percent were from Detroit. The mean age from the two cities was 21.2 years. Data provided are combined from Detroit and Milwaukee. The survey shows that 1 in 5 men (20 percent) reported not using a condom during insertive and/or receptive anal sex. Non-white participants were more likely to report insertive anal sex with a condom than white participants. More than half of the total sample (55 percent) had non-main partners in addition to main partners. Almost one-third (32 percent) reported that drugs or alcohol was a factor for having sex with their last non-main partner, while less than a quarter (22 percent) reporting being high on drugs or alcohol during sex with their main partner.

This section discusses questions from interviews with infected MSM regarding condom use with male partners from the SHAS project. Among the 333 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (187) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 11 and 12, of the 111 male respondents who reported having insertive anal sex with a steady male partner, 28 percent reported not using condoms the last time they had sex. Of the 119 male respondents who reported having receptive anal sex with a steady male partner, 30 percent reported that their partner did not use a condom. The percentages of condom use are similar for most recent non-steady partners the last time they had sex.

Figure 11: Partners Condom Usage During
Insertive Anal Sex Among HIV Infected MSM in
SHAS (N = 111)

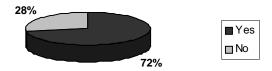
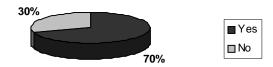


Figure 12: Partners Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (N = 119)



Ranked Behavioral Group: MSM: HIV-Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Use of condoms with male partners was assessed and indicated inconsistent condom usage. Condom use was more frequent among those who reported being the insertive partner. Figure 13 shows that of 40 respondents reporting a "primary" partner who participated in receptive anal sex, 13 (32 percent) reported that their partner used condoms "Always" in the past year. Figure 14 shows that of the 47 respondents reporting a "primary" male partner who participated in insertive anal sex, 22 (47 percent) reported using a condom "Always".

Figure 13: In the past 12 months, when you had receptive anal sex with a primary male partner, how often did he use a condom?

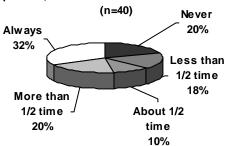


Figure 14: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom?

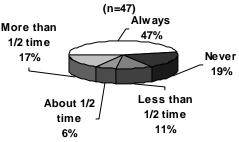


Figure 15 shows that among the 19 respondents with a "non-primary" male partner, 7 (37 percent) reported that their partner used condoms "Always" in the past year when they participated in receptive anal sex. Figure 16 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom "Always".

Figure 15: In the past 12 months, when you had receptive anal sex with a non-primary male partner, how often did he use a condom? (n=19)

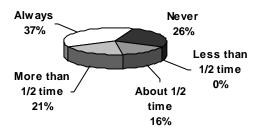
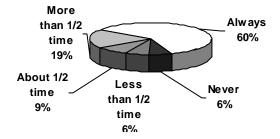


Figure 16: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys & Supplement to HIV/AIDS Surveillance Project II (SHAS)

Number of Cases

Injecting drug users (IDUs) are the number-two ranked behavioral group in the Detroit Metro Area and account for less then a quarter (19 percent) of reported infected persons. MDCH estimates there are approximately 2,000 IDUs living with HIV disease in the Detroit Metro Area. This estimate includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals, infants, and MSM. Almost half (45 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 1,051 cases with reported heterosexual risk, 313 individuals (30 percent) also reported having IDU as partners. Sixty-two percent of perinatally infected infants (infants infected at birth) have mothers who are IDU or have a mother whose partner is an IDU.

When these linked populations are considered, IDU-related transmission accounts for 24 percent (1,961 cases) of people reported with HIV disease in the Detroit Metro Area. This is similar to the nationwide picture of 24 percent IDU.

Incidence:

In the early 2000s, a less sensitive EIA assay was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999. A total of 20 persons were identified during the period as having recently acquired HIV infection, with the annual number of incident infections ranging from zero-seven (0 to 9 percent are HIV-positive) persons tested. The small number of recently infected persons tested limits the generalizability of the trends. Overall HIV incidence ranged from zero percent in 1988, 1989, and 1993 to two percent in 1992. In the most recent survey years, incidence increased from a low of 0.15 percent in 1997 to 0.62 percent in 1999. Because the number of recent infections identified each year was small, data were pooled in 3-year intervals to get more stable estimates of incidence over time. The pooled estimates show a peak in incidence between 1990-1992 at 0.82 percent and then a decline over the years. Again, in the later years, incidence began to increase, but it did not reach the levels seen from 1990-92.

Black males and black females were the only groups with recently acquired infections. Incidence was highest in these two groups in the early 1990s, peaking for black males in 1992 at 2.82 percent and for black females in 1999 at 2.68 percent. Incident infections occurred more often among older age groups in the early years and occurred in the latter part of the decade in younger persons. For instance, incidence peaked in 1999 for persons 25-29 years (3.34 percent) and 30-34 years (1.58 percent), but the highest incidence occurred in 1992 among persons 40-44 years (6 percent).

Ranked Behavioral Group: IDU (continued)

Incidence (continued):

IDU and NIDU (non-injecting drug use) were the only risk groups with recently acquired infections. HIV incidence was higher among IDU than NIDU in the early years of the survey, peaking at three percent in 1992, but there were no recently acquired infections among IDU after 1996. New infections were identified in NIDU from 1994 onward, with incidence ranging from 0.1 percent in 1996 to 0.88 percent in 1998-99. Among IDU, recently acquired infections were only identified among persons whose primary drug was heroin. Among NIDU, new infections were found primarily among crack co-caine users, and incidence increased among crack users from1997 (0.4 percent) to 1999 (1.4 percent). None of the newly infected clients chose to be HIV tested at intake to substance abuse services. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys (page 1-8).

Race/Ethnicity and Sex:

Of the 1,580 IDU HIV/AIDS cases (including MSM/IDUs), 806 are black men (51 percent), 448 are black women (28 percent), 192 are white men (12 percent), 70 are white women (4 percent), 39 are Hispanic men (2 percent) and 12 are Hispanic women (1 percent). In total, 80 percent (1,254 cases) of the IDU cases occur in black men and women. Approximately two-thirds of the cases are men (66 percent) and one-third are women (34 percent). Among the 533 women who's HIV infection has been attributed to IDU, over half (55 percent) were also reported with high-risk heterosexual sex partners. See Table 8, page 3-66.

Additional behavioral data on HIV infected IDUs and other drug users in southeast Michigan is known from the SHAS interview project. Of the 1,174 persons interviewed in SHAS between 2000 and 2004, 15 percent (178) injected drugs at some time during their lives. This 15 percent (178) was mostly comprised of males (63 percent). Of the 178 injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C. Of these 90 injection drug users with hepatitis C, 59 percent (53) were male and 41 percent (37) were female. One hundred and seventy-four (98 percent) of injection drug users have ever used some kind of non-injection drugs in the past. When injection drug users were asked about ever being in a drug or alcohol treatment program, 135 persons (76 percent) responded in the affirmative. Forty-two percent (74) of the 178 injection drug users are potential alcoholics; 59 percent (44) were male and 41 percent (30) were female. A 'potential alcoholic' is defined as a person who answered 'Yes' to 2 or more of the following questions on the SHAS II questionnaire: 1) Have you ever felt you ought to cut down on your drinking?, 2) Have people ever annoyed you by criticizing your drinking?, 3) Have you ever felt bad or guilty about your drinking?, and 4) Have you ever had a drink first thing in the morning to steady your nerves or rid yourself of a hangover?

Other drug use information shows 772 (66 percent) of all respondents (1,174) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack cocaine for both men and women.

Questions used to screen respondents for potential alcoholism reveal that 32 percent (371) of all respondents are potential alcoholics-31 percent of males (263) and 32 percent of females (108). Further SHAS data describing the drug use behaviors of participants in this project are available online at www.michigan.gov/mdch.

Ranked Behavioral Group: IDU (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 303 (17 percent) reported IDU behavior, including IDU who where also MSM. Of those reporting IDU with no MSM behavior, 36 percent also reported high-risk heterosexual sex, while 64 percent reported no sexual behavior of any kind.

Age:

Among men in each age group over 19 years, IDU (when combined with MSM/IDU) is the second most common mode of transmission. Seventy-eight percent of IDU cases are among men who were in their thirties and forties at the time of HIV diagnosis (47 and 38 percent, respectively).

IDU is the predominant mode of transmission for women who were in their forties at the time of HIV diagnosis. Almost a third (32 percent) of all female, HIV infected IDUs were in this age group. The proportion of cases attributed to IDU and HRH were close for women in their thirties at the time of HIV diagnosis (32 and 36 percent, respectively). Among the 397 female IDUs who were in their thirties or forties at the time of HIV diagnosis, 56 percent of them also reported high risk heterosexual partners.

There are very few cases of HIV/AIDS attributed to IDU among teenagers (7 percent); the proportion of IDU (including MSM/IDU) among those in their twenties is also small (10 percent).

Geographic Distribution:

Ninety-five percent of IDU cases were reported in the high prevalence areas of the Detroit Metro Area. Within high prevalence counties, just under one-fourth of cases (20 percent) are IDU, while in the low prevalence counties, 12 percent of persons living with HIV/AIDS are IDU. (These percentages include IDU males who are also MSM).

Trends and Conclusions:

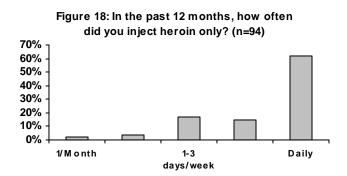
MDCH estimates that the annual number of new HIV diagnoses attributable to IDU transmission has remained statistically level from 2000 to 2004 with an estimated 22 new HIV infections in the year 2004 (excluding MSM/IDU). However, there was a decline in the proportion of new diagnoses seen in IDUs, from 18 percent to 15 percent (111 to 93 cases); however, the numbers did not reach statistical significance. Some of these persons were also likely exposed to HIV through heterosexual sex because IDUs are more likely to have IDU sex partners than are persons who do not inject drugs. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.

Ranked Behavioral Group: IDU: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

The HITS survey assessed behaviors in HIV-negative IDUs. This section includes data from Detroit (66 IDUs), Oakland County (7 IDUs), and Grand Rapids (21 IDUs). Figure 217 shows approximately three in ten respondents reporting use of non-sterile needles at least some of the time during the 12 months prior to the survey. Figure 18 shows that 62 percent reported injecting only heroin on a "Daily" basis.

Figure 17: In the last 12 months, how often have you used a dirty needle? (n=94)About 1/2 Alw ays Don't tim e 1% know 4% 1% Less than 1/2 Never tim e 68% 26%



Inconsistent condom use among female injection drug users is higher with primary male sex partners. Among female IDUs reporting "primary" male sex partners, 57 percent reported "Never" using a condom (Figure 19). Among female IDUS reporting "non-primary" male sex partners, 18 percent reported "Never" using a condom (Figure 20).

Figure 19: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=23)

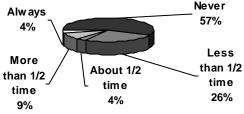
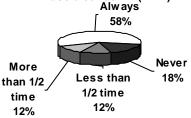


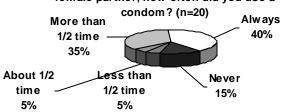
Figure 20: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



Male injection drug users reported comparable condom usage rates with their female partners. Among those reporting a "primary" female sex partner, 57 percent reported "Never" using a condom with the primary female partner (Figure 21). Fifteen percent of male respondents reported "Never" using a condom with their female non-primary partner (Figure 22).

Figure 21: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a Less condom? (n=37) Never than 1/2 57% time 11% More About 1/2 Alw ays than 1/2 time 22% time 5% 5%

Figure 22: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a



Ranked Behavioral Group: High-Risk Heterosexuals

Data from HIV/AIDS Reporting System (HARS) & Family of HIV Seroprevalence Surveys

Number of Cases:

Heterosexual transmission is the number-three ranked behavioral group in the Detroit Metro Area. High-risk heterosexual sex accounts for 13 percent of reported infected persons. MDCH estimates that 1,330 persons living with HIV disease in the Detroit Metro Area were infected through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals (these are referred to as high-risk heterosexual partners). Please see Appendix B.

Currently there are an estimated 700 infected persons who are classified as IDUs but who also had one or more high-risk heterosexual sex partner(s). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise seven percent of all reported HIV/AIDS cases and are 47 percent men and 53 percent women within the Detroit Metro Area.

Incidence:

In the early 2000s, a less sensitive EIA assay, was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999. At Michigan HIV counseling, testing, & referral centers incidence ranged from 22-54 cases (13 to 24 percent) of HIV positive persons tested annually. Overall HIV incidence among all persons tested was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. Specifically, heterosexuals were represented by two groups: a person engaging in only heterosexual sex, with no other risk and a person whose sex partner was at risk for HIV. Each of these groups accounted for 14 percent of recently acquired HIV infection during this period. The majority of recently acquired infections in the heterosexual group were black, and the proportion of blacks increased in the later study years, with the greatest increase seen among black females (29 to 44 percent).

Race/Ethnicity and Sex:

Among females of all races reported with HIV/AIDS, 38 percent of cases are contracted heterosexually. Twenty-seven percent were infected via IDU. Among HIV infected women, 15 percent are IDUs who also had high-risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 1,051 men and women living with HIV/AIDS and infected heterosexually, 30 percent reported their heterosexual partner as an injecting drug user, four percent as behaviorally bisexual men (this applies to women only) and two percent as persons infected through blood products. Just under two-thirds (64 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Race/Ethnicity and Sex (continued):

While women account for 24 percent of HIV/AIDS cases in the Detroit Metro Area, they have consistently accounted for almost three-fourths of heterosexually acquired infections -- currently 72 percent. Less than half of white and black women were infected heterosexually (42 and 37 percent, respectively). Over half of Hispanic women were infected through heterosexual sex (52 percent).

Most heterosexual cases of HIV/AIDS are black--80 percent of female and 80 percent of male heterosexually transmitted HIV/AIDS cases were among blacks. However, the percent of men infected heterosexually is low--six percent of cases among men of all races with a known risk.

The heterosexual transmission category includes sub-categories to describe mode of transmission in more detail. This is especially helpful for women since they make up most (72 percent) of the heterosexually transmitted cases. To be reported as a heterosexual transmission case, a female must have a male partner who is an IDU, behaviorally bisexual man, blood recipient known to be HIV +, and/or HIV positive. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women are shown in Figures 23 and 24.

Figure 23: Black Females Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 1,637)

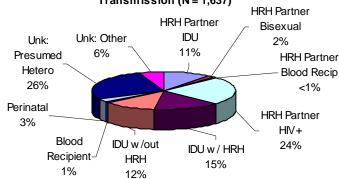
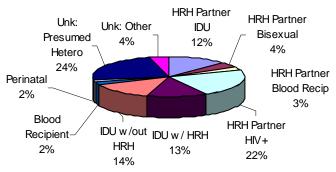


Figure 24: White Females Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 265)



Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 201 (12 percent) reported high-risk heterosexual behavior.

Age:

For every age group of women who were over 12 at the time of their HIV diagnosis, heterosexual transmission is the predominant mode, except for women who were in their forties. The proportion of high-risk heterosexual transmission in men increases with age at HIV diagnosis, peaking at 11 percent for those 60 and older, but never surpasses that of MSM or IDU.

Geographic Distribution:

Ninety-four percent of the 1,051 cases attributed to heterosexual activity in the Detroit Metro Area were reported in high prevalence counties. Of all the cases within high prevalence counties in the Detroit Metro Area, heterosexual transmission constitutes 13 percent of the cases. Within low prevalence counties, heterosexual transmission constitutes nine percent of the cases.

Trends and Conclusions:

MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission has remained level from 2000 to 2004 with an estimated 93 new HIV cases in the year 2004. The data show that although there is heterosexual transmission from women to men, it is a much smaller problem in Michigan (and the U.S.) than transmission from men to women. In light of the much lower seroprevalence rates among high-risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, recent trends show that heterosexually acquired cases could surpass the proportion of cases attributed to IDU in the coming years.

Ranked Behavioral Group: High-Risk Heterosexuals: Condom Usage

Data from Supplement to HIV/AIDS Surveillance Project II (SHAS)

In SHAS, 64 percent (213) of female respondents reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview. Of these, most (208 or 98 percent) reported having sex with a man in the 12 months prior to the interview. We asked these 208 women questions about use of a barrier with their steady (someone they feel committed to above anyone else and have sex with) partners. Eighty-five percent (176) of the (208) women report being in a steady relationship with a man during the 12 months prior to interview. Use of a barrier with these partners is displayed in Table 3.

Sixty-three percent (529) of male SHAS respondents reported having vaginal, oral, and/or anal sex during the 12 months prior to the interview. Of these 529, 228 men (43 percent) report having had sex with a woman in the 12 months prior to the interview. Sixty-five percent (148) of these men reported being in a steady relationship with a woman in the 12 months prior to interview. Condom use at that sexual contact with these partners is displayed in Table 3.

Table 3: Barrier/Condom Use with Steady Partner, Among Heterosexuals

	Females (n=176) Percent (barrier use/sexual activity)	Males (n=148) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	69% (118/172)	78% (113/145)
**Oral sex	22% (7/32)	40% (16/40)

^{*}Categories are not mutually exclusive

In addition, we asked women and men, questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) report having sex with a man other than a steady male partner in the 12 months prior to interview. While among the male SHAS respondents, 115 (50 percent) report having sex with a woman other than a steady female partner in the 12 months prior to interview. Barrier/condom use at last sexual contact with these partners is displayed in Table 4.

Table 4: Barrier/Condom Use with Most Recent Non-Steady Partner, Among Heterosexuals

	Females (n=68) Percent (barrier use/sexual activity)	Males (n=115) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	70% (46/66)	78% (84/108)
**Oral sex	35% (7/20)	29% (14/48)

^{*}Categories are not mutually exclusive

^{**}Oral sex: mouth-vagina and penis-mouth

^{**}Oral sex: mouth-vagina and penis-mouth

Ranked Behavioral Group: High-Risk Heterosexuals: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

High-risk HIV-negative heterosexuals were interviewed as a part of HITS at the sexually transmitted disease clinics of the Detroit City (62), Oakland County (27), and Kent County (28) Health Departments. Men interviewed reported "Never" using a condom 45 percent of the time with their primary female partner and "Never" using a condom 19 percent of the time with a non-primary female partner (Figures 25 and 26). Women interviewed in the STD clinics reported "Never" using a condom 38 percent of the time with their primary male partners, and "Never" using a condom 42 percent with the non-primary male partners (Figures 27 and 28).

Figure 25: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a

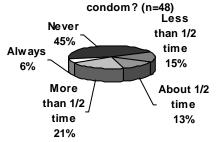


Figure 26: Men: In the past 12 months, when you had vaginal sex with a nonprimary female partner, how often did you



Figure 27: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

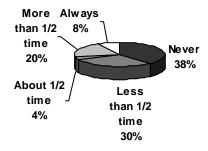
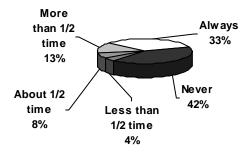


Figure 28: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Black persons comprise the majority of those living with HIV/AIDS in the Detroit Metro Area. This group comprises 23 percent of this area's population yet make up about two-thirds (68 percent) of the cases of HIV/AIDS. MDCH estimates 7,140 black persons live with HIV/AIDS in the Detroit Metro Area. The rate of HIV infection among blacks is 705 per 100,000 population, almost eight times higher than the rate among whites. MDCH estimates that as many as one out of 90 black males and one out of 260 black females may be HIV-infected.

White persons comprise almost three-quarters of the area's population (70 percent) but just over a quarter (27 percent) of reported HIV/AIDS cases. MDCH estimates 2,860 white persons live with HIV/AIDS in the Detroit Metro Area. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection (92 per 100,000 population) than blacks or Hispanics. MDCH estimates that as many as one out of 600 white males and one out of 4,650 white females may be HIV-infected.

Hispanics comprise three percent of the population and three percent of the cases. MDCH estimates 300 Hispanics live with HIV/AIDS in the Detroit Metro Area. However, the relatively few cases are spread out among a small population and therefore they have a rate higher (234 per 100,000 population) than that among whites. MDCH estimates that as many as one out of 310 Hispanic males and one out of 870 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in the Detroit Metro Area as of January 2006 are male (76 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 24 percent of the infected population in this area.

The majority of the 6,286 male HIV/AIDS cases are black (63 percent), 32 percent white, three percent Hispanic and two percent are other or unknown race. The majority of the 2,000 female HIV/AIDS cases are black (82 percent), under one-quarter white (13 percent), three percent Hispanic and two percent other or unknown race.

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 79 percent are male and 21 percent are female.

Over two-thirds (67 percent) are black, 29 percent are white, and 3 percent are Hispanic. Black males make up the majority at 49 percent, followed by white males (27 percent) and black females (18 percent). The remainder of the race-sex groups are all below three percent. See Table 7, page 4-42 for more detail.

Description of the Epidemic by Race and Sex (continued)

Mode of Transmission:

Figures 29 and 30 display the proportion of black and white male cases by mode of transmission.

Figure 29: Black Males Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 3,990)

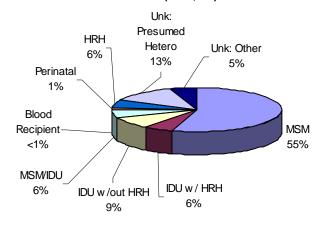
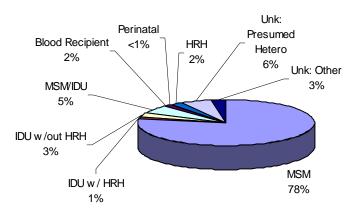


Figure 30: White Males Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 1,986)



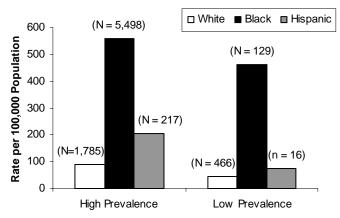
Please refer to Figures 23 and 24 on page 4-25 for black and white female distributions.

Description of the Epidemic by Race and Sex (continued)

Geographic Distribution of Cases:

Looking at the proportions of cases by race (e.g., number of black cases/total number of cases) in a particular area of the Detroit Metro Area does not fully measure the impact of this disease. This is because the proportions of whites and blacks living in high and low prevalence areas are different (see page 3-9). Therefore, instead of proportions, rates are used (e.g., number of black cases/total number of blacks living in that area). Figure 31 shows that among blacks, the rate is six to 11 times higher than the rate among whites in both high and low prevalence areas of the Detroit Metro Area, even though there are many fewer cases among blacks in the low prevalence areas. This shows that this disease

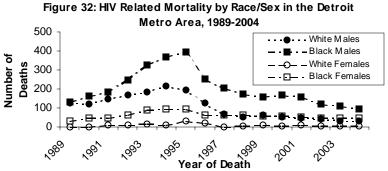
Figure 31: Case Rates of Persons with HIV/AIDS Living in High & Low Prevalence Areas of The Detroit Metro Area, by Race



disproportionately affects blacks in both high and low prevalence areas of the Detroit Metro Area. Also, the HIV/AIDS case rate among Hispanics is one and a half to two times higher than the rate among whites in both high and low prevalence areas.

Mortality:

Figure 32 shows that HIV related mortality dropped for all four race and sex groups from 1995 to 2004. The number of deaths among Hispanics was too small to appear on this graph. The decline in deaths from 2001 to 2004 was marked among white women (50 percent) and black men (40 percent). White men saw a moderate decline (30 percent), and black women experienced a slight decrease (8 percent).



Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks has remained level and was at 602 in 2004. During this same time period, the estimated annual number among whites has remained level at 307 persons in 2004, and the estimated annual number among Hispanic and other races/ethnicities has remained level at 62 cases in 2004.

Trends in new HIV diagnoses among males and females show similar patterns. The number of males newly diagnosed with HIV each year is level at about 721 new infections (74 percent of cases) in the year 2004. Among females the number appears to also be stable at 250 (26 percent cases) in the year 2004.

Description of the Epidemic by Age

Data from HIV/AIDS Reporting System (HARS)

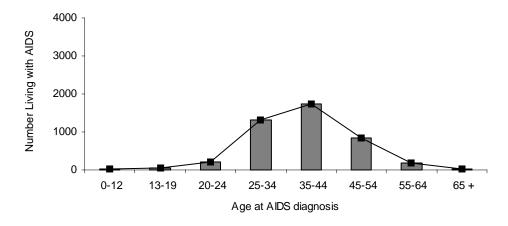
Age at Diagnosis:

The proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years of age, from one percent to five percent (9 to 30 cases) and among those diagnosed at 20-24 years of age, from seven percent to 15 percent (46 to 99 cases). Figure 33 shows that persons who were between the ages of 25 and 34 at their initial diagnosis of HIV make up the majority of those living with HIV/AIDS (35 percent). Those who were 35-44 years old make up the second largest group of age at initial HIV diagnosis, but are the largest age group at AIDS diagnosis (40 percent), shown in Figure 34.

4000 3000 2000 1000 0-12 13-19 20-24 25-34 35-44 45-54 55-64 65 + Age at initial HIV Diagnosis

Figure 33: Age at initial HIV Diagnosis for those living with HIV/AIDS in the Detroit Metro Area, 1/1/06

Figure 34: Age of AIDS Diagnosis for those living with AIDS in the Detroit Metro Area, 1/1/06



Description of the Epidemic by Age

Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 35, which shows the current ages of those living with HIV in Michigan. Those currently ages 35 to 44 years make up the largest group of those living with HIV (35 percent), while those ages 45-44 make up the second largest group (31 percent). While persons who were ages 55 and older at the time of AIDS diagnosis made up only five percent of those diagnosed with AIDS (Figure 34), persons in this age group make up 14 percent of persons living with HIV/AIDS in the Detroit Metro Area.

4000 3000 - 2000 - 1000 - 0-12 13-19 20-24 25-34 35-44 45-54 55-64 65 + Current Age

Figure 35: Current age of those living with HIV/AIDS in the Detroit Metro Area, 1/1/06

Description of the Epidemic by Age: Children (0-12)

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 140 people living in the Detroit Metro Area, who were ages 0-12 when they were diagnosed with HIV. They comprise 1.4 percent of reported infected persons. Most of them (90 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding.). Of the remaining persons, six percent were infected via blood exposure before 1985 and four percent had unknown risks.

Demographic Description of Cases:

Of the 112 persons who were ages 0-12 years when diagnosed with HIV/AIDS, living in the Detroit Metro Area, 53 percent are male and 47 percent are female; 76 percent are black, 18 percent are white and six percent are Hispanic or of unknown race. See Table 9, page 4-44.

Of the 101 persons infected perinatally, 49 percent had a mother who was an IDU, 13 percent of these had a mother who was not known to be an IDU but one or more of her sex partners were IDUs. Two percent had mothers with behaviorally bisexual sex partners. An additional 12 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For 16 percent all that was known about the mother is that she was HIV-infected with no additional risk information. Six percent were hemophiliacs and 2 percent have unknown risks.

Geographic Distribution of Infected Cases:

Eighty-eight percent of the 112 persons diagnosed and reported with HIV/AIDS between the ages of 0-12 are located in high prevalence counties. The remaining 12 percent are located in low prevalence counties.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among the perinatally infected cases. Without Zidovudine (ZDV) prophylaxis, about 25 percent of children born to HIV-infected women could expect to become HIV-infected. As of January 1, 2006, one of the 33 children born in 2003, one of the 34 children born in 2004, and none of the 33 children born in 2005 to HIV-infected women living in the Detroit Metro Area were diagnosed with HIV infection.

Description of the Epidemic by Age: Teens and Young Adults, 13-24

Data from HIV/AIDS Reporting System (HARS), STD Reporting System, Youth Risk Behavior Survey & Bureau of Juvenile Justice Youth Risk Behavior Survey

Number of Cases:

MDCH estimates that there are about 1,480 persons currently living in the Detroit Metro Area who were ages 13-24 years when they were diagnosed with HIV. Those ages 13-19 years comprise three percent; and age 20-24 years, 11 percent of the Detroit Metro Area total. The rate of HIV/AIDS among these young people is lower than the rate among those aged 25-44 years. The number of newly diagnosed and prevalent cases among persons 13-24 years is not as high as the level among persons 25-44 years. However, some young people are at particularly high risk. Specifically those who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STDs:

STD rates are highest in these age groups. The STD data are shown on Table 9, page 4-45. In the Detroit Metro Area, the rate of chlamydia in persons age 15-19 is over six times higher than the overall rate (among all persons in this area). The rate of gonorrhea in this same age group is just over five times that of overall rate. (Please refer to the Sexually Transmitted Diseases Section of the Statewide Profile (page 3-20) for a discussion of these high rates). While rates of STDs among 15-19 year olds are quite high, the rates of HIV in this demographic group are comparably low. Also, since the rates of HIV among teens are very low, and because most teens have sex with other teens, the gonorrhea and chlamydia epidemic is perpetuated and HIV is rarely introduced into the population.

Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have shown decreases over time and decreased significantly from 2000 to 2004. The statewide teen pregnancy rate in 2004 was 55 pregnancies per 1,000 females aged 15-19 years. In the Detroit Metro Area, the 2004 rates ranged from 35-111 pregnancies per 1,000 females aged 15-19. The city of Detroit had the second highest rate of teen pregnancy statewide (111 per 1,000) in 2004. The 2004 rates among teens (15-19) in Detroit exceed the rates among women age 15-44 years in that same area (111 vs. 100). However, in 2002, the rates among teens in Detroit were equal to the rates among women aged 15-44.

Race/Ethnicity:

Eighty-three percent of persons aged 13-19 at the time of HIV diagnosis are black, 12 percent are white, and five percent are Hispanic or other race. Seventy-six percent of persons aged 20-24 at the time of HIV diagnosis are black, 20 percent are white, and four percent are Hispanic or other race.

Mode of Transmission:

<u>Teenagers</u>: Historically, most infected teenagers were recipients of HIV-infected blood or blood products. However, since screening of all blood products began in 1985 this proportion has steadily declined.

Figure 36 shows that among the 255 persons living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, 171 (67 percent) are male. Among these male cases, just under three-quarters had sex with other males (73 percent), including MSM/IDU, while five percent had been infected with HIV through blood products before 1985. Four percent could be attributed to IDU, including MSM/IDU and two percent to heterosexual transmission for this age group within this area. Teenage males have the

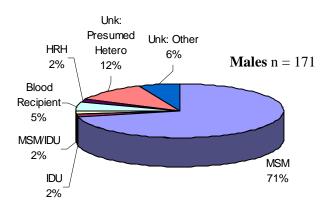
Additional Discussions: Teens and Young Adults (continued)

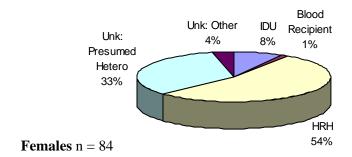
Mode of transmission (continued):

largest proportion of unidentified risk (18 percent) compared with any other age group of men under age 40. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Figure 36 also shows that among the 84 females living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, over half (54 percent) were infected through heterosexual sex; eight percent were IDUs. There is a large proportion that did not report a mode of transmission (37 percent), however this proportion of cases with an unknown mode of transmission is consistent with females of any age.

Figure 36: Persons living in the Detroit Metro Area who were aged 13-19 when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 255)





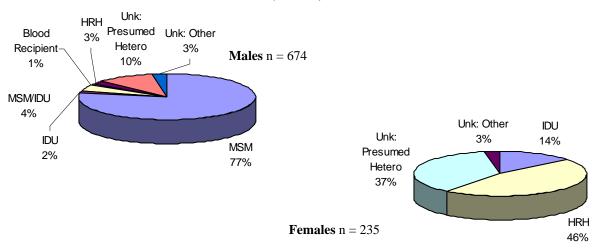
Additional Discussions: Teens and Young Adults (continued)

Young Adults:

Figure 37 shows that among the 909 persons living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, almost three quarters (74 percent) are male. Of these, over 80 percent have reported sex with other males (including those MSM who also are IDU); 13 percent did not report a mode of transmission. Many of these were likely infected through sex with other men.

Figure 37 also shows that among the 235 females living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, just under half (46 percent) were infected heterosexually and 14 percent were IDUs; just over a third (37 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.

Figure 37: Persons living in the Detroit Metro Area who were aged 20-24 when diagnosed with HIV (Young Adults), by Sex and Mode of Transmission (N=909)



Geographic Distribution of Youth and Teen Cases:

Ninety-three percent of the 1,164 persons diagnosed and reported with HIV/AIDS between the ages of 13-24 are located in high prevalence counties of the Detroit Metro Area. The remaining seven percent are located in low prevalence counties.

Trends and Conclusions:

The proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years of age, from one percent to five percent (9 to 30 cases) and among those diagnosed at 20-24 years of age, from seven percent to 15 percent (46 to 99 cases). The Detroit Metro Area should consider both sexual behaviors of youth that increase the risk of HIV transmission and the likelihood that their partners for these behaviors are HIV-infected. The data also suggest that prevention activities among teenagers and young adults of both sexes should be geared towards those having sex with older males. These activities should recognize that adolescents at highest risk are those whose sex partners are older, since older men are more likely to be HIV-infected than are younger males.

Description of the Epidemic by Age: 50 years and older

Data from HIV/AIDS Reporting System (HARS)

Number:

MDCH estimates there are 900 persons living in the Detroit Metro Area, who were 50 years and older when they were diagnosed with HIV. They comprise nine percent of all reported infected persons. This population was mainly infected through sexual contact (either men having sex with men or heterosexually), however ,those who were in their fifties when diagnosed with HIV have a substantial proportion infected through injection drug use. Three-quarters of this population is male.

Mode of Transmission:

When discussing mode of transmission, those who were in their fifties at the time of HIV diagnosis have different transmission mode proportions than those who were aged 60 or older. Therefore, these two populations are discussed separately.

<u>Description of Cases aged 50-59 at the time of diagnosis</u>: Persons who were in their fifties when first diagnosed with HIV are 74 percent male and 26 percent female. Among these 587 persons reported with HIV/AIDS about just over three-fourths are black (71 percent), one-quarter are white (24 percent) and 6 percent are Hispanic or of unknown race.

Figure 38: Males aged 50-59 at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 437)

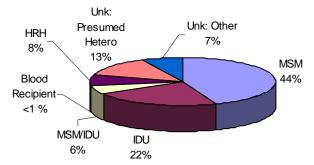
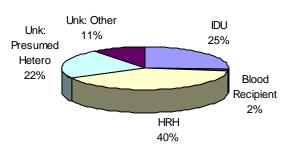


Figure 39 shows that among the 150 females who were in their fifties at time of HIV diagnosis and currently living with HIV, less then half (40 percent) were infected heterosexually and 25 percent were IDUs. One-third (33 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 38 shows that half of the 437 males in their fifties at time of HIV diagnosis and currently living with HIV (50 percent) reported having sex with other males (including those MSM who also are IDU). Over one-quarter reported injection drug use (including those IDU who were also MSM). Eight percent were infected heterosexually. Twenty percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 39: Females aged 50-59 at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 150)



Description of the Epidemic by Age: 50 years and older (continued)

<u>Description of Cases 60 years and older at the time of diagnosis:</u> Persons who were 60 years and older when first diagnosed with HIV are 75 percent male and 25 percent female. Among these 124 persons reported with HIV/AIDS two-thirds are black (64 percent), one-quarter are white (27 percent) and 10 percent are Hispanic or of unknown race.

Figure 40: Males aged 60 and older at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 91)

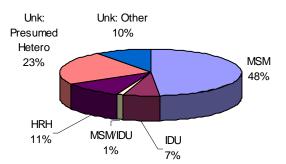
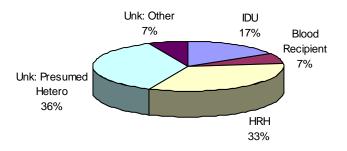


Figure 40 shows that less then half of the 91 males who were 60 years and older at time of HIV diagnosis and currently living with HIV (49 percent) reported sex with other males (including those MSM who also are IDU). Eight percent reported injection drug use (including those IDU who were also MSM). Eleven percent were infected heterosexually. Thirty-three percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 41 shows that among the 30 females who were 60 and older at the time of HIV diagnosis and currently living with HIV, one-third (33 percent) were infected heterosexually and 17 percent were IDUs. Just under a half (43 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 41: Females aged 60 and older at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N=30)



Description of the Epidemic by Age: 50 years and older (continued)

Trends and Conclusions:

The proportion of persons who were 50 years and older at the time of diagnosis has remained level from 2000 through 2004. There were 84 persons diagnosed with HIV and 1,707 who are currently this age living with HIV in 2004. As treatment for HIV allows infected persons to live longer, persons in this age group may be a source of infections for their peers and others. Therefore, it is important for prevention programs to include this age group when designing prevention activities.

Description of the Epidemic by Age: Persons Currently Aged 50 Years and Older

As of January 1, 2006 there are 2,205 persons who are **currently** age 50 or older and living with HIV/AIDS in the Detroit Metro Area. This represents 27 percent of the 8,286 persons diagnosed in and living with HIV/AIDS in the Detroit Metro Area as of the first of this year. Data in this section were analyzed differently than for the rest of the profiles. All numbers used in the 2006 Profile of HIV/AIDS in Michigan represent those HIV infected persons currently living in Michigan, regardless of where they were initially diagnosed.

The proportion of persons **currently** age 50 and older in the Detroit Metro Area has increased over the last five years. This can be attributed, at least in part, to the more effective anti-retroviral medications have been available since 1996. As a result, infected persons are living longer and are, therefore, getting older. Table 5 shows the percent of persons who were age 50+ at the beginning of each of the seven years listed.

Table 5: Percent of Persons aged 50 and older living in Michigan by 'Year End'

	Number	Percent
1/1/2000	857	14%
1/1/2001	1,041	16%
1/1/2002	1,242	18%
1/1/2003	1,444	20%
1/1/2004	1,707	23%
1/1/2005	1,943	25%
1/1/2006	2,205	27%

Nearly 70 percent of persons 50 years and older who are currently living were not 50 and older at the time of HIV diagnosis. However, if persons in this age group have sex with others in their age group, they can infect others their own age. In order to minimize transmission among this age group, sexually active persons of all ages should be offered HIV testing when they present for medical care and given risk reduction messages.

Footnotes for the Detroit Metro Area, Tables 6 through 8

- * Indicates there are fewer than five (n=1,2,3 or 4) reported cases
- # Indicates an explanatory definition exists in Appendix B
- ^X Indicates age is at time of HIV diagnosis (Unknown age: Males=2, Females=1)
- ¹ The minimum estimate is 10 cases.
- ² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/06
- ³ Rate calculated (Estimated HIV Infection/2000 Census) * 100,000
- ⁴ This is a subset of all HIV/AIDS cases reported alive as of 1/1/06
- ⁵ Totals for counties/areas includes infected prisoners who were discharged/paroled if no current residence is available.

Table 6: Distribution of HIV/AIDS: Prevalence Estimates, Reported Cases, and Population Currently Living within the Detroit Metropolitan Area⁵

Prisoners and persons with unknown residence are not included January 1, 2006

			T. () 1 1 1 1 1 1 1		Initial HIV diagno			
		Estimated	Total HIV +		same time as A			
	Estimated HIV	Rate per	Reported	1*	diagnosis ⁴ Reported AIDS			
	Infection 1	100,000 ³	Cases	%	Cases	%	2000 Census	%
Male	7,970	369.4	6,286	76%	1387	79%	2,157,470	49%
White, Non-Hispanic Males	2,520	165.9	1,986	24%	478	27%	1,518,812	34%
Black, Non-Hispanic Males	5,060	1,080.1	3,990	48%	854	49%	468,477	11%
Hispanic Males	220	327.0	175	2%	42	2%	67,279	2%
Asian, Hawaiian, Pacific Islander Males	40	77.1	31	<1%	9	1%	51,874	1%
American Indian Males	10	157.6	10	<1%	1	<1%	6,344	<1%
Other Race Males	N/A	*	94	1%	3	<1%	44,684	N/A
Female	2,540	111.2	2,000	24%	358	21%	2,284,081	51%
White, Non-Hispanic Females	340	21.5	265	3%	35	2%	1,578,088	36%
Black, Non-Hispanic Females	2.080	382.5	1,637	20%	309	18%	543,785	12%
Hispanic Females	70	115.1	58	1%	11	1%	60,796	1%
Asian, Hawaiian, Pacific Islander Females	10	19.4	9	<1%	2	<1%	51,416	1%
American Indian Females	10	148.5	5	<1%	0	0%	6,736	<1%
Other Race Females	N/A	146.5	26	<1%	1	<1%		
		02.4			513		43,260	N/A
White, Non-Hispanic	2,860	92.4	2,251	27%		29% 67%	3,096,900	70%
Black, Non-Hispanic	7,140	705.4	5,627	68%	1163	67%	1,012,262	23%
Hispanic	300	234.2	233	3%	53	3%	128,075	3%
Asian, Hawaiian, Pacific Islander	50	48.4	40	<1%	11	1%	103,290	2%
American Indian	20	152.9	15	<1%	1	<1%	13,080	<1%
Other Race	N/A	*	120	1%	4	<1%	87,944	N/A
Male-Male Sex#	4,900	N/A	3,864	47%	877	50%		
Injecting Drug Use [#]	1,560	N/A	1,231	15%	239	14%		
IDU with heterosexual risk	700	N/A	555	7%	85	5%		
IDU without heterosexual risk	860	N/A	676	8%	154	9%		
M-M Sex and Inject Drugs [#]	440	N/A	349	4%	64	4%		
Blood Recipients [#]	70	N/A	58	1%	13	1%		
Perinatal	130	N/A	101	1%	12	1%		
Heterosexual [#]	1,330	N/A	1,051	13%	201	12%		
Partner IDU	400	N/A	313	4%	58	3%		
Partner Bisexual	60	N/A	45	1%	5	<1%		
Partner Blood Recipient	30	N/A	23	<1%	7	<1%		
Partner HIV+	850	N/A	670	8%	131	8%		
Known Risk Total	8,440	N/A	6,654	80%	1406	81%		
Unknown Risk [#]	N/A	N/A	1,632	20%	339	19%		
Presumed Heterosexual	N/A	N/A	1,213	15%	276	16%		
Other	N/A	N/A	419	5%	63	4%		
0 - 4 years ^x	110	35.4	84	1%	10	1%	310,638	7%
5 - 9 years ^X	30	8.7	21	<1%	1	<1%	346,656	8%
10-12 years ^X	10	4.8	7	<1%	1	<1%	206,214	5%
13-19 years ^x	320	76.3	255	3%	18	1%	419,442	9%
20-24 years ^x	1,150	451.9	909	11%	86	5%	254,469	6%
25-29 years ^x	1,670	538.3	1,316	16%	194	11%	310,242	7%
30-34 years ^x	2,010	595.7	1,586	19%	332	19%	337,435	8%
35-39 years ^x	1,940	535.3	1,532	18%	345	20%	362,411	8%
40-44 years ^x	1,460	395.1	1,152	14%	306	18%	369,557	8%
40-44 years 45-49 years ^x	900	273.1	713	9%	229	13%	329,490	7%
45-49 years 50-54 years ^x	530	185.8	416	5%	126	7%	285,289	6%
	220	103.8	171	2%	53	3%	213,932	5%
55-59 years ^X	90				22	3% 1%		5% 4%
60-64 years ^X	90 60	56.4 11.2	73 48	1% 1%	22	1% 1%	159,475 536 301	4% 12%
65 and older ^X	N/A	11.2 N/A	48 3		0	1% 0%	536,301 0	
Unknown Age				<1%				N/A
DETROIT	6,680	702.2	5,135	62%	1077	62%	951,270	21%
LAPEER CO.	40	45.5	27	<1%	6	<1%	87,904	2%
MACOMB CO.	620	78.7	479	6%	118	7%	788,149	18%
MONROE CO.	70	48.0	51	1%	13	1%	145,945	3%
OAKLAND CO.	1,720	144.0	1,323	16%	259	15%	1,194,156	27%
ST CLAIR CO.	90	54.8	73	1%	17	15%	164,235	4%
WAYNE CO. (not including Detroit)	1,560	140.6	1,198	14%	255	100%	1,109,892	25%
Total Detroit Metropolitan Area	10,510	236.6	8,286	100%	1745	100%	4,441,551	100%

Table 7: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area Sex and Race by Risk January 1, 2006

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex [#]	1,546	78%	2,182	55%	88	50%	48	36%	3,864	61%
Injecting Drug Use [#]	87	4%	575	14%	28	16%	8	6%	698	11%
IDU w/ heterosexual	23	1%	226	6%	12	7%	1	1%	262	4%
IDU w/o heterosexual	64	3%	349	9%	16	9%	7	5%	436	7%
Male-Male Sex/IDU [#]	105	5%	231	6%	11	6%	2	1%	349	6%
Blood Recipients#	31	2%	7	<1%	2	1%	2	1%	42	1%
Perinatal	7	<1%	41	1%	1	1%	1	1%	50	1%
Heterosexual [#]	42	2%	236	6%	13	7%	5	4%	296	5%
Partner IDU	14	1%	72	2%	4	2%	1	1%	91	1%
Partner Blood Recipient	1	<1%	5	<1%	0	0%	0	0%	6	<1%
Partner HIV+	27	1%	159	4%	9	5%	4	3%	199	3%
Total Known Risks	1,818	92%	3,272	82%	143	82%	66	49%	5,299	84%
Unknown Risk [#]	168	8%	718	18%	32	18%	69	51%	987	16%
Presumed Heterosexual	115	6%	518	13%	25	14%	26	19%	684	11%
Other	53	3%	200	5%	7	4%	43	32%	303	5%
Total All Cases	1,986	32%	3,990	63%	175	3%	135	2%	6,286	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use#	70	26%	448	27%	12	21%	3	8%	533	27%
IDU w/ heterosexual	34	13%	252	15%	6	10%	1	3%	293	15%
IDU w/o heterosexual	36	14%	196	12%	6	10%	2	5%	240	12%
Blood Recipients#	6	2%	9	1%	1	2%	0	0%	16	1%
Perinatal	5	2%	42	3%	2	3%	2	5%	51	3%
Heterosexual [#]	111	42%	604	37%	30	52%	10	25%	755	38%
Partner IDU	33	12%	174	11%	10	17%	5	13%	222	11%
Partner Bisexual	11	4%	32	2%	2	3%	0	0%	45	2%
Partner Blood Recipient	8	3%	8	<1%	1	2%	0	0%	17	1%
Partner HIV+	59	22%	390	24%	17	29%	5	13%	471	24%
Total Known Risks	192	72%	1,103	67%	45	78%	15	38%	1,355	68%
Unknown Risk [#]	73	28%	534	33%	13	22%	25	63%	645	32%
Presumed Heterosexual	62	23%	442	27%	10	17%	15	38%	529	26%
Other	11	4%	92	6%	3	5%	10	25%	116	6%
Total All Cases	265	13%	1,637	82%	58	3%	40	2%	2,000	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex [#]	1,546	69%	2,182	39%	88	38%	48	27%	3,864	47%
Injecting Drug Use [#]	157	7%	1,023	18%	40	17%	11	6%	1,231	15%
IDU w/ heterosexual	57	3%	478	8%	18	8%	2	1%	555	7%
IDU w/o heterosexual	100	4%	545	10%	22	9%	9	5%	676	8%
Male-Male Sex/IDU [#]	105	5%	231	4%	11	5%	2	1%	349	4%
Blood Recipients [#]	37	2%	16	<1%	3	1%	2	1%	58	1%
Perinatal	12	1%	83	1%	3	1%	3	2%	101	1%
Heterosexual [#]	153	7%	840	15%	43	18%	15	9%	1,051	13%
Partner IDU	47	2%	246	4%	14	6%	6	3%	313	4%
Partner Bisexual	11	<1%	32	1%	2	1%	0	0%	45	1%
Partner Blood Recipient	9	<1%	13	<1%	1	<1%	0	0%	23	<1%
Partner HIV+	86	4%	549	10%	26	11%	9	5%	670	8%
Total Known Risks	2,010	89%	4,375	78%	188	81%	81	46%	6,654	80%
Unknown Risk [#]	241	11%	1,252	22%	45	19%	94	54%	1,632	20%
Presumed Heterosexual	177	8%	960	17%	35	15%	41	23%	1,213	15%
Other	64	3%	292	5%	10	4%	53	30%	419	5%
Total All Cases	2,251	27%	5,627	68%	233	3%	175	2%	8,286	100%

Table 8: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area Age^X at HIV Diagnosis by Risk January 1, 2006

Male Only	0-12 y	oore	13-19 y	oore	20-24 ye	nare	25-29 y	oare	30-39 ye	oore	40-49 y	oore	50-59 ye	oore	60+	oare.	All Ages	
Male Only	Cases	ears %	Cases	ears %	Cases	ears %	Cases	ears %	Cases	ears %	Cases	ears %	Cases	ears	Cases	years %	Cases	%
Male-Male Sex#	0	0%	122	71%	523	78%	743	74%	1,529	64%	710	49%	193	44%	44	48%	3,864	61%
Injecting Drug Use#	0	0%	3	2%	11	2%	42	4%	237	10%	302	21%	96	22%	6	7%	697	11%
IDU w/ heterosexual	0	0%	1	1%	2	<1%	17	2%	106	4%	108	8%	25	6%	3	3%	262	4%
IDU w/o heterosexual	0	0%	2	1%	9	1%	25	2%	131	5%	194	14%	71	16%	3	3%	435	7%
Male-Male Sex/IDU#	o	0%	3	2%	27	4%	46	5%	151	6%	96	7%	25	6%	1	1%	349	6%
Blood Recipients#	7	12%	9	5%	7	1%	6	1%	10	<1%	2	<1%	1	<1%	0	0%	42	1%
Perinatal	50	85%	0	0%	, o	0%	0	0%	0	0%	0	0%	0	0%	0	0%	50	1%
Heterosexual [#]	0	0%	3	2%	17	3%	38	4%	124	5%	71	5%	33	8%	10	11%	296	5%
Partner IDU	0	0%	0	0%	1	<1%	14	1%	38	2%	26	2%	8	2%	4	4%	91	1%
Partner Blood Recipient	0	0%	0	0%	0	0%	1	<1%	2	<1%	1	<1%	1	<1%	1	1%	6	<1%
Partner HIV+	0	0%	3	2%	16	2%	23	2%	84	3%	44	3%	24	5%	5	5%	199	3%
Total Known Risks	57	97%	140	82%	585	87%	875	87%	2,051	85%	1,181	82%	348	80%	61	67%	5,298	84%
Unknown Risk [#]	2	3%	31	18%	89	13%	135	13%	354	15%	256	18%	89	20%	30	33%	986	16%
Presumed Heterosexual	0	0%	20	12%	71	11%	90	9%	257	11%	167	12%	58	13%	21	23%	684	11%
Other	2	3%	11	6%	18	3%	45	4%	97	4%	89	6%	31	7%	9	10%	302	5%
Total All Cases	59	1%	171	3%	674	11%	1,010	16%	2,405	38%	1,437	23%	437	7%	91	1%	6,284	100%
Female Only	0-12 y		13-19 y		20-24 ye	pars	25-29 y	ears	30-39 ye	ears	40-49 v	ears	50-59 ye		60+ v	/ears	All Ages	
i emale omy	Cases	%	Cases	%	Cases	% %	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use#	0	0%	7	8%	33	14%	53	17%	227	32%	170	40%	38	25%	5	17%	533	27%
IDU w/ heterosexual	0	0%	5	6%	20	9%	30	10%	132	19%	89	21%	16	11%	1	3%	293	15%
IDU w/o heterosexual	0	0%	2	2%	13	6%	23	8%	95	13%	81	19%	22	15%	4	13%	240	12%
Blood Recipients#	0	0%	1	1%	0	0%	3	1%	4	1%	3	1%	3	2%	2	7%	16	1%
Perinatal	51	96%	0	0%	ő	0%	0	0%	0	0%	0	0%	0	0%	0	0%	51	3%
Heterosexual [#]	0	0%	45	54%	109	46%	136	44%	256	36%	139	32%	60	40%	10	33%	755	38%
Partner IDU	0	0%	6	7%	18	8%	30	10%	84	12%	56	13%	23	15%	5	17%	222	11%
Partner Bisexual	0	0%	2	2%	2	1%	13	4%	20	3%	8	2%	0	0%	0	0%	45	2%
Partner Blood Recipient	0	0%	0	0%	2	1%	6	2%	8	1%	0	0%	0	0%	1	3%	17	1%
Partner HIV+	0	0%	37	44%	87	37%	87	28%	144	20%	75	18%	37	25%	4	13%	471	24%
Total Known Risks	51	96%	53	63%	142	60%	192	63%	487	68%	312	73%	101	67%	17	57%	1,355	68%
Unknown Risk [#]	2	4%	31	37%	93	40%	114	37%	226	32%	116	27%	49	33%	13	43%	644	32%
Presumed Heterosexual	0	0%	28	33%	86	37%	90	29%	196	27%	85	20%	33	22%	11	37%	529	26%
Other	2	4%	3	4%	7	3%	24	8%	30	4%	31	7%	16	11%	2	7%	115	6%
Total All Cases	53	3%	84	4%	235	12%	306	15%	713	36%	428	21%	150	8%	30	2%	1,999	100%
Male and Female	0-12 y	ears	13-19 y	ears	20-24 ye	ears	25-29 y	ears	30-39 ye	ears	40-49 v	ears	50-59 ye	ears	60+ v	/ears	All Ages	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex#	0	0%	122	48%	523	58%	743	56%	1,529	49%	710	38%	193	33%	44	36%	3,864	47%
Injecting Drug Use#	0	0%	10	4%	44	5%	95	7%	464	15%	472	25%	134	23%	11	9%	1,230	15%
IDU w/ heterosexual	0	0%	6	2%	22	2%	47	4%	238	8%	197	11%	41	7%	4	3%	555	7%
IDU w/o heterosexual	0	0%	4	2%	22	2%	48	4%	226	7%	275	15%	93	16%	7	6%	675	8%
Male-Male Sex/IDU#	0	0%	3	1%	27	3%	46	3%	151	5%	96	5%	25	4%	1	1%	349	4%
Blood Recipients#	7	6%	10	4%	7	1%	9	1%	14	<1%	5	<1%	4	1%	2	2%	58	1%
Perinatal	101	90%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	101	1%
Heterosexual [#]	0	0%	48	19%	126	14%	174	13%	380	12%	210	11%	93	16%	20	17%	1,051	13%
i ictoi obexuai	1	0%	6	2%	19	2%	44	3%	122	4%	82	4%	31	5%	9	7%	313	4%
Partner IDU	0	070				<1%	13	1%	20	1%	8	<1%	0	0%	0	0%	45	1%
	0	0%	2	1%	2	< 170	10									070		
Partner IDU			2 0	1% 0%	2	<1%	7	1%	10	<1%	1	<1%	1	<1%	2	2%	23	<1%
Partner IDU Partner Bisexual	0	0% 0% 0%		0% 16%	2 103				228	7%	1 119	<1% 6%	1 61	<1% 10%	2	2% 7%	670	8%
Partner IDU Partner Bisexual Partner Blood Recipient	0	0% 0%	0	0%	2	<1%	7	1%			-					2%		
Partner IDU Partner Bisexual Partner Blood Recipient Partner HIV+	0 0 0	0% 0% 0%	0 40	0% 16%	2 103	<1% 11%	7 110	1% 8%	228	7%	119	6%	61	10%	9	2% 7%	670	8%
Partner IDU Partner Bisexual Partner Blood Recipient Partner HIV+ Total Known Risks Unknown Risk [#] Presumed Heterosexual	0 0 0 0	0% 0% 0% 96% 4% 0%	0 40 193	0% 16% 76%	2 103 727	<1% 11% 80% 20% 17%	7 110 1,067	1% 8% 81%	228 2,538 580 453	7% 81% 19% 15%	1,493 372 252	6% 80%	61 449 138 91	10% 76% 24% 16%	9 78	2% 7% 64% 36% 26%	670 6,653 1,630 1,213	8% 80% 20% 15%
Partner IDU Partner Bisexual Partner Blood Recipient Partner HIV+ Total Known Risks Unknown Risk	0 0 0 0 108 4	0% 0% 0% 96% 4%	0 40 193 62	0% 16% 76% 24%	2 103 727 182	<1% 11% 80% 20%	7 110 1,067 249	1% 8% 81% 19%	228 2,538 580	7% 81% 19%	119 1,493 372	6% 80% 20%	61 449 138	10% 76% 24%	9 78 43	2% 7% 64% 36%	670 6,653 1,630	8% 80% 20%

See page 4-41 for footnotes Detroit Metro Area, page 4-44

Table 9: Gonorrhea, Syphilis, and Chlamydia by Sex Race, and Age Group in the Detroit Metro Area January 1, 2004 to December 31, 2005

	G	onorrhea	P&9	S Syphili	is	Chlamydia				
Patient Group	Population	Cases	Pct	Rate	Cases	Pct	Rate	Cases	Pct	Rate
Male	2,157,470	4,665	43%	216	61	78%	3	4,274	21%	198
White Males	1,518,812	199	2%	13	14	18%	1	464	2%	31
Black Males	468,477	2,287	21%	488	43	55%	9	1,941	9%	414
Hispanic Males	67,279	15	0%	22	3	4%	4	28	0%	42
Other Males	102,902	37	0%	N/A	0	0%	N/A	99	0%	N/A
Unk Males	N/A	2,127	20%	N/A	1	1%	N/A	1,742	8%	N/A
Female	2,284,081	6,100	57%	267	17	22%	1	16,237	79%	711
White Females	1,578,088	309	3%	20	0	0%	0	1,285	6%	81
Black Females	543,785	1,540	14%	283	16	21%	3	4,283	21%	788
Hispanic Females	60,796	22	0%	36	1	1%	2	56	0%	92
Other Females	101,412	97	1%	N/A	0	0%	N/A	464	2%	N/A
Unk Females	N/A	4,132	38%	N/A	0	0%	N/A	10,149	49%	N/A
White	3,096,900	508	5%	16	14	18%	0	1,749	8%	56
Black	1,012,262	3,829	35%	378	59	76%	6	6,231	30%	616
Hispanic	128,075	37	0%	29	4	5%	3	84	0%	66
Other	204,314	134	1%	66	0	0%	0	573	3%	280
Unknown Race	N/A	6,287	58%	N/A	1	1%	N/A	11,943	58%	N/A
0-4 years	310,638	7	0%	2	0	0%	0	18	0%	6
5-9 years	346,656	7	0%	2	0	0%	0	15	0%	4
10-14 years	206,214	152	1%	74	0	0%	0	364	2%	177
15-19 years	419,442	3,181	29%	758	0	0%	0	7,871	38%	1877
20-24 years	254,469	3,268	30%	1284	8	10%	3	6,801	33%	2673
25-29 years	310,242	1,690	16%	545	8	10%	3	2,762	13%	890
30-34 years	337,435	992	9%	294	13	17%	4	1,346	7%	399
35-39 years	362,411	632	6%	174	12	15%	3	663	3%	183
40-44 years	369,557	355	3%	96	14	18%	4	307	1%	83
45-54 years	614,779	352	3%	57	16	21%	3	185	1%	30
55-64 years	373,407	61	1%	16	5	6%	1	42	0%	11
65 and over	536,301	42	0%	8	1	1%	0	56	0%	10
Unknown Age	N/A	56	1%	N/A	1	1%	N/A	150	1%	N/A
Total	4,441,551	10,795	100%	243	78	100%	2	20,580	100%	463

Table 10: Characteristics of HIV/Hepatitis Co-Infected Persons in Care, in Southeast Michigan ASD, 2001-2003.

		HAV Co-	HBV Co-	HCV Co-
	All (n=1790)	infected (n=64)	infected (n=207)	infected (n=353)
Sex		(11=04)	(II=207) *	(H=353) *
Male	58%	66%	68%	50%
Female	42%	34%	32%	50%
Race	1270	0.70	0270	*
White	20%	30%	17%	13%
Black	75%	67%	80%	83%
Others	5%	3%	2%	4%
Age				*
<20	1%	0%	0%	0%
20-29	10%	11%	5%	3%
30-39	27%	14%	29%	9%
40-49	38%	39%	38%	43%
>=50	24%	36%	28%	44%
HIV Transmission Risk			*	*
MSM	38%	45%	45%	10%
IDU	30%	34%	41%	78%
Blood Exposure	2%	5%	1%	5%
High-Risk Heterosexual	21%	8%	8%	6%
Presumed Heterosexual	8%	8%	3%	1%
Unknown/Others	1%	0%	<1%	0%
HAV Vaccination	14%	5%*	13%	23%*
HBV Vaccination	21%	24%	4%*	14%*

^{*}Proportions significantly different from the proportions among all the persons in care, p<0.05 in Chi square test comparing the distribution of co-infected patients among the categories of the demographic, vaccination or transmission risk factor to the distribution of all the persons in care.

NOTE: Hepatitis A (HAV), Hepatitis B (HBV), or Hepatitis C (HCV) co-infection is defined as diagnosis of HAV, HBV (acute or chronic) or HCV, recorded in ASD at any time in the past. Age is the age as of the last care recorded in 2001-2003. HAV and HBV Vaccination include vaccinations recorded in ASD at any time in the past.